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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,926	11/18/2003	Hae Pyoung Lee	DPO-0010	3023
34610 7590 01/23/2009 KED & ASSOCIATES, LLP P.O. Box 221200 Chantilly, VA 20153-1200				
EXAMINER TANK, ANDREW L				
ART UNIT		PAPER NUMBER		
2175				
MAIL DATE		DELIVERY MODE		
01/23/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/714,926

Applicant(s)

LEE, HAE PYOUNG

Examiner

Andrew Tank

Art Unit

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19, 20, 23, 25-27, 30, 31, 36-38, 41, 42, 46, 48-50, 53, 57, 59-61, 64-66, 68-73 and 75-85 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-846)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/05/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Disposition of Claims: Claims pending in the application are 19,20,23,25-27,30,31,36-38,41,42,46,48-50,53,57,59-61,64-66,68-73 and 75-85.

DETAILED ACTION

1. The following action is in response to the Request for Continued Examination (RCE) filed under 37 CFR 1.53(d) for the instant application on November 5, 2008. Applicants have properly set forth the RCE, which has been entered into the application. Accordingly, the amendment submitted October 14, 2008, has been entered and an examination on the merits follows herewith.
2. Claims 19, 30, 41, 53, 64, 75, 77, 82 and 84-85 have been directly amended. **Claims 19-20, 23, 25-2, 30-31, 36-38, 41-42, 46, 48-50, 53, 57, 59-61, 64-66, 68-73, and 75-85** are pending and have been considered below.

Claim Objections

3. Claim 82 is objected to because of the following informalities: minor typographical error in line 3: "at the mobile p hone". Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claim 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 25: Claim 25 recites the limitation "for identifying the avatar being controlled" in
2. There is insufficient antecedent basis for this limitation in the claim. Parent claim 19 recites that a joint of an avatar is controlled.
7. Applicant has successfully amended claim 41 to overcome the indefinite-claim rejection of July 16, 2008. The corresponding rejection is withdrawn.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 19-20, 23, 27, 30-31, 38, 41-42, 46, 50, 53, 57, 61, 64-66, 68-73, and 75-81** rejected under 35 U.S.C. 103(a) as being unpatentable over Attar et al. (US 2004/0030596), previously presented as "Attar", in view of Stringer (WO 200063874 A1), previously presented as "Stringer", and in further view of Matsuda et al. (US 6,820,112), hereafter known as "Matsuda".

- **Claims 19, 30 and 71:** Attar discloses a method and apparatus for controlling an avatar at a called party (page 1 [0007-0010]), the method comprising:
 - displaying the avatar at a mobile phone (page 3 [0062] "The computer equipment can also be in the form of a mobile telephone 21") of the called party (page 3 [0061] lines 17-18);

- receiving a signal (page 1 [0006]: “Each user (or group of users) has a computer connected to the communications network”) for controlling the avatar (page 1 [0010]: “an operator remotely controls the virtual object in real-time and animates it”), wherein the received signal is transmitted from the mobile phone of the calling party to the called party (page 3 [0062] “The computer equipment can also be in the form of a mobile telephone 21”) (*with regards to claim 71*); and
- controlling the displayed avatar in accordance with the received signal (page 3 [0061] lines 17-19).
- Attar does not disclose that the avatar displayed includes a plurality of joints and that therefore the received signal for controlling the avatar includes information for controlling at least one joint of the displayed avatar. Stringer discloses an input device for controlling an avatar on a computing device (Abstract). The avatar has a plurality of joints and parts (page 10 paragraph 2: “The virtual puppet has a plurality of independently movable body parts 710a-710d.”, Fig. 7). The movement of these parts and joints are controlled in response to motion signals that are generated from an input (page 10 paragraph 4: “displaying a virtual puppet 710 on the display 708 . . . showing movement of the portions 710a-710d of the virtual puppet 710 in response to the pressure and motion signals”). Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Attar and Stringer before them at the time the present invention was made to substitute the known element of the independently movable joint and part avatar, as disclosed by Stringer, for the avatar disclosed by Attar in the remote avatar controlling method of Attar. This substitution

- would yield the predictable result of displaying an avatar having a plurality of joints at a called party; receiving a signal for controlling a joint of the avatar, wherein the signal is transmitted from a mobile phone of the calling party to the called party, the received signal corresponding to one of the joints of the avatar; and controlling at least one joint of the displayed avatar in accordance with the received signal.
- Attar and Stringer disclose the method as above, and while Stringer discloses that the puppet has individually moveable parts and joints controlled in response to signals from an input, and Attar discloses controlling animation of an avatar using a mobile phone, i.e. inputs from the mobile phone, neither Attar nor Stringer explicitly disclose controlling each individual joint of the avatar based on corresponding different input keys of the controlling mobile phone. Matsuda discloses a process for manipulating and controlling virtual living objects, i.e. avatars, in a virtual space. In particular, Matsuda discloses the skeletal structure of the virtual living object is explicitly labeled with Joint ID's (Fig. 9 col 10 lines 17-34). It would have been obvious to one having ordinary skill in the art and the teachings of Attar, Stringer, and Matsuda before them at the time the present invention was made to implement the known method of mobile-phone controlled avatar of Attar and Stringer, wherein the limbs and joints are individually movable, by assigning keys of the mobile phone as known individual joint labels, as suggested by Matsuda, to yield the predictable result of controlling each joint of the avatar by through corresponding input keys on the mobile phone. One would be further motivated to do this in order to provide input from the mobile phone, i.e. use of the mobile phone keys, to animate the given avatar.

- **Claims 41 and 53:** Attar discloses a method and apparatus for controlling an avatar displayed at a mobile phone of a called party (page 1 [0007-0010], page 3 [0061] lines 17-18: “enabling computer 2 to process a virtual object 6 appearing on the display screen 2a of the computer 2”) using a mobile phone of a calling party (page 3 [0062]: “The computer equipment can also be in the form of a mobile telephone 21”), the method comprising:
 - displaying the avatar on the mobile phone of the called party (page 4 [0065] lines 8-10);
 - generating a signal for controlling the avatar displayed at the called party and displayed on the mobile phone (page 3 [0061] lines 17-18); and
 - transmitting the signal to the called party via a network (Fig. 1 “3”, page 3 [0061] line 7: “communications network 3”).
- Attar does not disclose that the avatar displayed includes a plurality of joints and that therefore the received signal for controlling the avatar includes information for controlling at least one joint of the displayed avatar. Stringer discloses an input device for controlling an avatar on a computing device (Abstract). The avatar has a plurality of joints and parts (page 10 paragraph 2: “The virtual puppet has a plurality of independently movable body parts 710a-710d.”, Fig. 7). The movement of these parts and joints are controlled in response to motion signals that are generated from an input (page 10 paragraph 4: “displaying a virtual puppet 710 on the display 708 . . . showing movement of the portions 710a-710d of the virtual puppet 710 in response to the pressure and motion signals”). Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Attar and Stringer before them at

the time the present invention was made to substitute the known element of the independently movable joint and part avatar, as disclosed by Stringer, for the avatar disclosed by Attar in the remote avatar controlling method of Attar. This substitution would yield the predictable result of displaying an avatar on a mobile phone, where the avatar has a plurality of joints; generating a signal for controlling at least one joint of the avatar displayed at the called party and displayed on the mobile phone; and transmitting the signal to the called party via a network.

- Attar and Stringer disclose the method as above, and while Stringer discloses that the puppet has individually moveable parts and joints controlled in response to signals from an input, and Attar discloses controlling animation of an avatar using a mobile phone, i.e. inputs from the mobile phone, neither Attar nor Stringer explicitly disclose controlling each individual joint of the avatar based on corresponding different input keys of the controlling mobile phone. Matsuda discloses a process for manipulating and controlling virtual living objects, i.e. avatars, in a virtual space. In particular, Matsuda discloses the skeletal structure of the virtual living object is explicitly labeled with Joint ID's (Fig. 9 col 10 lines 17-34). It would have been obvious to one having ordinary skill in the art and the teachings of Attar, Stringer, and Matsuda before them at the time the present invention was made to implement the known method of mobile-phone controlled avatar of Attar and Stringer, wherein the limbs and joints are individually movable, by assigning keys of the mobile phone as known individual joint labels, as suggested by Matsuda, to yield the predictable result of controlling each joint of the avatar of the called mobile phone by through

corresponding input keys on the calling mobile phone. One would be further motivated to do this in order to provide input from the mobile phone, i.e. use of the mobile phone keys, to animate the given avatar.

- **Claims 64 and 65:** Attar discloses a system and method for controlling an avatar (page 1 [0007-0010]), the method comprising:
 - generating signals to control the avatar at a mobile phone (page 3 [0061] lines 17-18);
 - transmitting the signals via a network (Fig. 1 “3”, page 3 [0061] line 7 “communications network 3”);
 - receiving the signals at a mobile phone of a called party (page 3 [0061] lines 15-19);
 - and
 - displaying the avatar in different representations (page 4 [0064] lines 8-10) at the called party based on the received signals (page 4 [0064] lines 4-7).
 - Attar does not disclose that the avatar displayed includes a plurality of joints and that therefore the generated signal for controlling the avatar includes information are related to different representations of joint arrangements for the avatar. Stringer discloses an input device for controlling an avatar on a computing device (Abstract). The avatar has a plurality of joints and parts (page 10 paragraph 2: “The virtual puppet has a plurality of independently movable body parts 710a-710d.”, Fig. 7). The movement of these parts and joints are controlled in response to motion signals that are generated from an input (page 10 paragraph 4: “displaying a virtual puppet 710 on the display 708 . . . showing movement of the portions 710a-710d of the virtual puppet 710 in response to the pressure and motion signals”, moving a part from one

position to another causes different representations of the arrangement of joints to be shown). Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Attar and Stringer before them at the time the present invention was made to substitute the known element of the independently movable joint and part avatar, as disclosed by Stringer, for the avatar disclosed by Attar in the remote avatar controlling method of Attar. This substitution would yield the predictable result of generating signals to control the avatar at a mobile phone, wherein the avatar includes a plurality of joints and the generated signals are related to a different joint of the avatar; transmitting the signals via a network; receiving the signals at a called party; and displaying the avatar in different representations at the called party based on the received signals, wherein each of the representations includes a different arrangement of the joints of the avatar.

- Attar and Stringer disclose the method as above, and while Stringer discloses that the puppet has individually moveable parts and joints controlled in response to signals from an input, and Attar discloses controlling animation of an avatar using a mobile phone, i.e. inputs from the mobile phone, neither Attar nor Stringer explicitly disclose controlling each individual joint of the avatar based on corresponding different input keys of the controlling mobile phone. Matsuda discloses a process for manipulating and controlling virtual living objects, i.e. avatars, in a virtual space. In particular, Matsuda discloses the skeletal structure of the virtual living object is explicitly labeled with Joint ID's (Fig. 9 col 10 lines 17-34). It would have been obvious to one having ordinary skill in the art and the teachings of Attar, Stringer, and Matsuda

before them at the time the present invention was made to implement the known method of mobile-phone controlled avatar of Attar and Stringer, wherein the limbs and joints are individually movable, by assigning keys of the mobile phone as known individual joint labels, as suggested by Matsuda, to yield the predictable result of controlling each joint of the avatar by through corresponding input keys on the mobile phone. One would be further motivated to do this in order to provide input from the mobile phone, i.e. use of the mobile phone keys, to animate the given avatar.

- **Claims 75 and 76:** Attar discloses a method of controlling an avatar at a mobile phone of a called party (page 1 [0007-0010], page 3 [0062] “The computer equipment can also be in the form of a mobile telephone 21”), the method comprising:
 - receiving a signal (page 1 [0006]: “Each user (or group of users) has a computer connected to the communications network”) for controlling the avatar (page 1 [0010]: “an operator remotely controls the virtual object in real-time and animates it”), wherein the received signal is transmitted from a mobile phone of a calling party to the mobile phone of the called party (page 3 [0062] “The computer equipment can also be in the form of a mobile telephone 21”); and
 - displaying the avatar at the called party in accordance with the received signal at the called party (page 3 [0061] lines 17-19),
 - wherein the avatar being controlled at the mobile phone of the called party is the same as in the mobile phone of the calling party ([0061], Fig. 1: 2a and 8a both display the virtual object 6), wherein the avatar of the mobile phone of the calling party is being equally controlled and displayed corresponding to the input signal

generated by a user of the mobile phone of the calling party ([0061]: "The still and/or animated images 10 and the virtual object 6 are animated simultaneously and independently.").

- Attar does not disclose that the avatar displayed includes a plurality of joints and that therefore the generated signal for controlling the avatar includes information are related to different representations of joint arrangements for the avatar. Stringer discloses an input device for controlling an avatar on a computing device (Abstract). The avatar has a plurality of joints and parts (page 10 paragraph 2: "The virtual puppet has a plurality of independently movable body parts 710a-710d.", Fig. 7). The movement of these parts and joints are controlled in response to motion signals that are generated from an input (page 10 paragraph 4: "displaying a virtual puppet 710 on the display 708 . . . showing movement of the portions 710a-710d of the virtual puppet 710 in response to the pressure and motion signals", moving a part from one position to another causes different representations of the arrangement of joints to be shown). Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Attar and Stringer before them at the time the present invention was made to substitute the known element of the independently movable joint and part avatar, as disclosed by Stringer, for the avatar disclosed by Attar in the remote avatar controlling method of Attar. This substitution would yield the predictable result of generating signals to control the avatar at a mobile phone, wherein the avatar includes a plurality of joints and the generated signals are related to a different joint of the avatar; transmitting the signals via a network; receiving the signals at a called

- party; and displaying the avatar in different representations at the called party based on the received signals, wherein each of the representations includes a different arrangement of the joints of the avatar.
- Attar and Stringer disclose the method as above, and while Stringer discloses that the puppet has individually moveable parts and joints controlled in response to signals from an input, and Attar discloses controlling animation of an avatar using a mobile phone, i.e. inputs from the mobile phone, neither Attar nor Stringer explicitly disclose controlling each individual joint of the avatar based on corresponding different input keys of the controlling mobile phone. Matsuda discloses a process for manipulating and controlling virtual living objects, i.e. avatars, in a virtual space. In particular, Matsuda discloses the skeletal structure of the virtual living object is explicitly labeled with Joint ID's (Fig. 9 col 10 lines 17-34). It would have been obvious to one having ordinary skill in the art and the teachings of Attar, Stringer, and Matsuda before them at the time the present invention was made to implement the known method of mobile-phone controlled avatar of Attar and Stringer, wherein the limbs and joints are individually movable, by assigning keys of the mobile phone as known individual joint labels, as suggested by Matsuda, to yield the predictable result of controlling each joint of the avatar by through corresponding input keys on the mobile phone. One would be further motivated to do this in order to provide input from the mobile phone, i.e. use of the mobile phone keys, to animate the given avatar.

- **Claim 77:** Attar discloses a method of controlling an avatar at a mobile phone of a called party (page 1 [0007-0010], page 3 [0062] “The computer equipment can also be in the form of a mobile telephone 21”), the method comprising:
 - selecting the avatar being controlled using the mobile phone ([0064]: “personage 6, controlled by the operator 7, is capable of movement on the still background 10, and is variable in size, shape and color, and provided with gestures, particularly head, arm and leg movements.”, i.e. operator 7 selects the avatar according to the above features, [0062]: “The computer equipment can also be in the form of a mobile telephone 21.”);
 - generating a signal for controlling the selected avatar (page 3 [0061] lines 17-18); and
 - transmitting the signal to the called party via a network (Fig. 1 “3”, page 3 [0061] line 7: “communications network 3”),
 - wherein the avatar being controlled at the called party is the same as in the mobile phone ([0061], Fig. 1: 2a and 8a both display the virtual object 6), wherein the avatar of the mobile phone is controlled and displayed corresponding to the generated signal ([0061]: “The still and/or animated images 10 and the virtual object 6 are animated simultaneously and independently.”).
 - Attar does not disclose that the avatar displayed includes a plurality of joints and that therefore the generated signal for controlling the avatar includes information are related to different representations of joint arrangements for the avatar. Stringer discloses an input device for controlling an avatar on a computing device (Abstract). The avatar has a plurality of joints and parts (page 10 paragraph 2: “The virtual

puppet has a plurality of independently movable body parts 710a-710d.”, Fig. 7). The movement of these parts and joints are controlled in response to motion signals that are generated from an input (page 10 paragraph 4: “displaying a virtual puppet 710 on the display 708 . . . showing movement of the portions 710a-710d of the virtual puppet 710 in response to the pressure and motion signals”, moving a part from one position to another causes different representations of the arrangement of joints to be shown). Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Attar and Stringer before them at the time the present invention was made to substitute the known element of the independently movable joint and part avatar, as disclosed by Stringer, for the avatar disclosed by Attar in the remote avatar controlling method of Attar. This substitution would yield the predictable result of generating signals to control the avatar at a mobile phone, wherein the avatar includes a plurality of joints and the generated signals are related to a different joint of the avatar; transmitting the signals via a network; receiving the signals at a called party; and displaying the avatar in different representations at the called party based on the received signals, wherein each of the representations includes a different arrangement of the joints of the avatar.

- Attar and Stringer disclose the method as above, and while Stringer discloses that the puppet has individually moveable parts and joints controlled in response to signals from an input, and Attar discloses controlling animation of an avatar using a mobile phone, i.e. inputs from the mobile phone, neither Attar nor Stringer explicitly disclose controlling each individual joint of the avatar based on corresponding different input

- keys of the controlling mobile phone. Matsuda discloses a process for manipulating and controlling virtual living objects, i.e. avatars, in a virtual space. In particular, Matsuda discloses the skeletal structure of the virtual living object is explicitly labeled with Joint ID's (Fig. 9 col 10 lines 17-34). It would have been obvious to one having ordinary skill in the art and the teachings of Attar, Stringer, and Matsuda before them at the time the present invention was made to implement the known method of mobile-phone controlled avatar of Attar and Stringer, wherein the limbs and joints are individually movable, by assigning keys of the mobile phone as known individual joint labels, as suggested by Matsuda, to yield the predictable result of controlling each joint of the avatar by through corresponding input keys on the mobile phone. One would be further motivated to do this in order to provide input from the mobile phone, i.e. use of the mobile phone keys, to animate the given avatar.
- **Claim 78:** Attar discloses a method of controlling an avatar stored in a mobile phone of a called party using a mobile phone of a calling party (page 1 [0007-0010], page 3 [0062] "The computer equipment can also be in the form of a mobile telephone 21"), the method comprising:
 - selecting the avatar being controlled using the mobile phone of the calling party ([0064]: "personage 6, controlled by the operator 7, is capable of movement on the still background 10, and is variable in size, shape and color, and provided with gestures, particularly head, arm and leg movements.", i.e. operator 7 selects the avatar according to the above features, [0062]: "The computer equipment can also be in the form of a mobile telephone 21.");

- displaying the selected avatar on the mobile phone of the calling party (page 4 [0065] lines 8-10);
- generating a signal for controlling the displayed avatar (page 3 [0061] lines 17-18);
and
- transmitting the signal to control the displayed avatar to the mobile phone of the called party via a network (Fig. 1 “3”, page 3 [0061] line 7: “communications network 3”),
- wherein the avatar being controlled at the mobile phone of the called party is the same as in the mobile phone of the calling party ([0061], Fig. 1: 2a and 8a both display the virtual object 6), wherein the avatar of the mobile phone is equally controlled and displayed corresponding to the generated signal ([0061]: “The still and/or animated images 10 and the virtual object 6 are animated simultaneously and independently.”).
- Attar does not disclose that the avatar displayed includes a plurality of joints and that therefore the generated signal for controlling the avatar includes information are related to different representations of joint arrangements for the avatar. Stringer discloses an input device for controlling an avatar on a computing device (Abstract). The avatar has a plurality of joints and parts (page 10 paragraph 2: “The virtual puppet has a plurality of independently movable body parts 710a-710d.”, Fig. 7). The movement of these parts and joints are controlled in response to motion signals that are generated from an input (page 10 paragraph 4: “displaying a virtual puppet 710 on the display 708 . . . showing movement of the portions 710a-710d of the virtual

puppet 710 in response to the pressure and motion signals”, moving a part from one position to another causes different representations of the arrangement of joints to be shown). Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Attar and Stringer before them at the time the present invention was made to substitute the known element of the independently movable joint and part avatar, as disclosed by Stringer, for the avatar disclosed by Attar in the remote avatar controlling method of Attar. This substitution would yield the predictable result of generating signals to control the avatar at a mobile phone, wherein the avatar includes a plurality of joints and the generated signals are related to a different joint of the avatar; transmitting the signals via a network; receiving the signals at a called party; and displaying the avatar in different representations at the called party based on the received signals, wherein each of the representations includes a different arrangement of the joints of the avatar.

- Attar and Stringer disclose the method as above, and while Stringer discloses that the puppet has individually moveable parts and joints controlled in response to signals from an input, and Attar discloses controlling animation of an avatar using a mobile phone, i.e. inputs from the mobile phone, neither Attar nor Stringer explicitly disclose controlling each individual joint of the avatar based on corresponding different input keys of the controlling mobile phone. Matsuda discloses a process for manipulating and controlling virtual living objects, i.e. avatars, in a virtual space. In particular, Matsuda discloses the skeletal structure of the virtual living object is explicitly labeled with Joint ID's (Fig. 9 col 10 lines 17-34). It would have been obvious to one

having ordinary skill in the art and the teachings of Attar, Stringer, and Matsuda before them at the time the present invention was made to implement the known method of mobile-phone controlled avatar of Attar and Stringer, wherein the limbs and joints are individually movable, by assigning keys of the mobile phone as known individual joint labels, as suggested by Matsuda, to yield the predictable result of controlling each joint of the avatar by through corresponding input keys on the mobile phone. One would be further motivated to do this in order to provide input from the mobile phone, i.e. use of the mobile phone keys, to animate the given avatar.

- **Claims 20 and 31:** Attar, Stringer, and Matsuda disclose the remote avatar control method and apparatus as in claims 19 and 30 above, respectively, and Attar further discloses wherein the avatar is transmitted from the mobile phone over a network (Fig. 1 “3”, page 3 [0061] line 7 “communications network 3”).
- **Claim 23:** Attar, Stringer, and Matsuda disclose the method as in claim 19 above, and Attar further discloses the method further comprising displaying the avatar on the mobile phone of the calling party (page 4 [0065] lines 8-10) and controlling the displayed avatar equally at the mobile phone of the calling party and the mobile phone of the called party ([0061]: “The still and/or animated images 10 and the virtual object 6 are animated simultaneously and independently.”).
- **Claims 27, 38, 50, and 61:** Attar, Stringer, and Matsuda disclose the methods and apparatuses as in claims 19, 30, 41, and 53 above, showing the relationship of a user and operator as portrayed through the mobile-keyed use of a jointed virtual avatar. Attar discloses this interactive method communication information to users of a communication

network (page 1 [0006]), each user having a computer or mobile phone connected to the network (page 3 [0062]). Attar further discloses that mobile phones are networked wirelessly (Fig. 1 “21”) and computers are networked wired (Fig. 1 “3”). Matsuda further discloses the use of a network for communication (col 11 lines 37-67, col 12 lines 1-50) and that the network is wireless (col 12 lines 55-57: “network transmission medium such as [...] digital communication satellite”).

- **Claim 42:** Attar, Stringer, and Matsuda disclose the method as in claim 41 above, and Attar further discloses the method further comprising changing a communication mode to a control mode (page 3-4 [0063] lines 21-26).
- **Claims 46 and 57:** Attar, Stringer, and Matsuda disclose the method and apparatus as in claims 41 and 53 above, respectively, and Attar further discloses wherein the avatar is displayed equally at the mobile phone of the calling party and at the mobile phone of the called party ([0061]: “The still and/or animated images 10 and the virtual object 6 are animated simultaneously and independently.”).
- **Claim 66:** Attar, Stringer, and Matsuda disclose the method of claim 65 above, and Attar further discloses the method further comprising displaying the avatar in different representatives at the mobile phone (page 4 [0064] lines 1-17, [0065] lines 8-11).
- **Claims 68 and 72:** Attar, Stringer, and Matsuda disclose the method and apparatus of claims 19 and 30 above, respectively, and Attar and Stringer further disclose wherein controlling the displayed avatar includes controlling an expression of the displayed avatar (Attar: page 3 [0063] lines 11-13, page 4 [0064] lines 14-17) and by controlling at least one joint of the avatar (Stringer: page 10 paragraph 4: “displaying a virtual puppet 710 on the display 708 . . .

showing movement of the portions 710a-710d of the virtual puppet 710 in response to the pressure and motion signals”).

- **Claims 69 and 73:** Attar, Stringer, and Matsuda disclose the method and apparatus of claims 19 and 30 above, respectively, and Attar and Stringer further disclose wherein controlling the displayed avatar includes controlling actions of the displayed avatar (Attar: page 4 [0064] lines 7-10) and by controlling at least one joint of the avatar (Stringer: page 10 paragraph 4: “displaying a virtual puppet 710 on the display 708 . . . showing movement of the portions 710a-710d of the virtual puppet 710 in response to the pressure and motion signals”).
- **Claim 70:** Attar, Stringer, and Matsuda disclose the method and apparatus of claims 19 and 30 above, respectively, and Attar and Stringer further disclose the method further comprising:
 - receiving another signal from the mobile phone of the calling party based on another one of the inputted keys (Attar: page 4 [0064]), the received another based on the another inputted one of the keys, the received signal corresponding to another one of the joints of the avatar (Stringer: Stringer: page 10 paragraph 4: “displaying a virtual puppet 710 on the display 708 . . . showing movement of the portions 710a-710d of the virtual puppet 710 in response to the pressure and motion signals”); and
 - controlling the another joint of the displayed avatar based on the received another signal (Attar: page 4 [0065] lines 13-14).
- **Claims 79-81:** Attar, Stringer, and Matsuda disclose the apparatus and systems of claims 30, 64, and 65 above, respectively, and Attar further discloses wherein the avatar being

controlled at the mobile phone of the called party is the same as in the mobile phone of the calling party ([0061], Fig. 1: 2a and 8a both display the virtual object 6).

Claim Rejections - 35 USC § 103

10. **Claim 82** is rejected under 35 U.S.C. 103(a) as being unpatentable over Attar in view of Stringer, in view of Matsuda, and in further view of Lloyd et al. (US 6,884,172), previously presented as “Lloyd”.

- **Claim 82:** Attar discloses a method of controlling an avatar at a mobile phone of a called party (page 1 [0007-0010], page 3 [0062] “The computer equipment can also be in the form of a mobile telephone 21”), the method comprising:
 - displaying the avatar at a mobile phone (page 3 [0062] “The computer equipment can also be in the form of a mobile telephone 21”) of the called party (page 3 [0061] lines 17-18);
 - receiving a signal (page 1 [0006]: “Each user (or group of users) has a computer connected to the communications network”) for controlling the avatar (page 1 [0010]: “an operator remotely controls the virtual object in real-time and animates it”), wherein the received signal is transmitted from the mobile phone of the calling party to the called party (page 3 [0062] “The computer equipment can also be in the form of a mobile telephone 21”); and
 - controlling the displayed avatar in accordance with the received signal (page 3 [0061] lines 17-19).

- Attar does not disclose that the avatar displayed includes a plurality of joints and that therefore the received signal for controlling the avatar includes information for controlling at least one joint of the displayed avatar. Stringer discloses an input device for controlling an avatar on a computing device (Abstract). The avatar has a plurality of joints and parts (page 10 paragraph 2: “The virtual puppet has a plurality of independently movable body parts 710a-710d.”, Fig. 7). The movement of these parts and joints are controlled in response to motion signals that are generated from an input (page 10 paragraph 4: “displaying a virtual puppet 710 on the display 708 . . . showing movement of the portions 710a-710d of the virtual puppet 710 in response to the pressure and motion signals”). Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Attar and Stringer before them at the time the present invention was made to substitute the known element of the independently movable joint and part avatar, as disclosed by Stringer, for the avatar disclosed by Attar in the remote avatar controlling method of Attar. This substitution would yield the predictable result of displaying an avatar having a plurality of joints at a called party; receiving a signal for controlling the avatar, wherein the signal is transmitted from a mobile phone to the called party, the received signal corresponding to one of the joints of the avatar; and controlling at least one joint of the displayed avatar in accordance with the received signal.
- Attar and Stringer disclose the method as above, and while Stringer discloses that the puppet has individually moveable parts and joints controlled in response to signals from an input, and Attar discloses controlling animation of an avatar using a mobile

phone, i.e. inputs from the mobile phone, neither Attar nor Stringer explicitly disclose controlling each individual joint of the avatar based on corresponding different specific input key of the controlling mobile phone. Matsuda discloses a process for manipulating and controlling virtual living objects, i.e. avatars, in a virtual space. In particular, Matsuda discloses the skeletal structure of the virtual living object is explicitly labeled with Joint ID's (Fig. 9 col 10 lines 17-34). It would have been obvious to one having ordinary skill in the art and the teachings of Attar, Stringer, and Matsuda before them at the time the present invention was made to implement the known method of mobile-phone controlled avatar of Attar and Stringer, wherein the limbs and joints are individually movable, by assigning specific keys of the mobile phone as known individual joint labels, as suggested by Matsuda, to yield the predictable result of controlling each joint of the avatar by through corresponding specific input keys on the mobile phone. One would be further motivated to do this in order to provide input from the mobile phone, i.e. use of the mobile phone keys, to animate the given avatar.

- Attar also shows that the system involves "at least one virtual object" (page 1 [0006]). However, Attar, Stringer, nor Matsuda specifically disclose a special number comprising an identifier number for identifying the avatar being controlled. Lloyd discloses a persistent game world (Abstract) maintaining virtual avatars for individual players (col 9 lines 55-64). As with Attar, the avatars help players using mobile devices (col 3 lines 13-19) interact with the persistent world (col 11 lines 20-30). Lloyd discloses multiple players requiring multiple avatars, thereby requiring a

player's identity (col 11 lines 34-35) to be defined through username and passwords (col 11 lines 38-56) or session id's (col 11 lines 63-67, col 12 lines 1-24). Therefore, it would have been obvious to one having ordinary skill in the art, having the teachings of Attar, Stringer, Matsuda and Lloyd before them at the time the present invention was made, to modify the user and operator method of interaction using a jointed virtual object taught by Attar, Stringer, and Matsuda to include the username/password authentication or session-id's method of Lloyd, in order to obtain virtual avatars that are identifiable either by a username/password combination or by a session-id of an encoded random value. One would have been motivated to make such a combination in order to provide well-defined boundaries for virtual avatar objects (col 11 lines 31-36), as taught by Lloyd, and therefore provide well-defined boundaries between users in a multi-operator environment (page 4 [0067]), as suggested by Attar.

11. **Claims 83-85** are rejected under 35 U.S.C. 103(a) as being unpatentable over Attar in view of Stringer, and in further view of Lloyd et al. (US 6,884,172), herein known as "Lloyd".

- **Claim 83:** Attar discloses a mobile phone (page 1 [0007-0010], page 3 [0062] "The computer equipment can also be in the form of a mobile telephone 21"), comprising:
 - a display for displaying the avatar at a mobile phone (page 3 [0062] "The computer equipment can also be in the form of a mobile telephone 21") of the called party (page 3 [0061] lines 17-18);

- a controller (page 1 [0006]: “Each user (or group of users) has a computer connected to the communications network”) for controlling the avatar (page 1 [0010]: “an operator remotely controls the virtual object in real-time and animates it”), wherein the received signal is transmitted from the mobile phone of the calling party to the called party (page 3 [0062] “The computer equipment can also be in the form of a mobile telephone 21”); and
- controlling the states of the displayed avatar in accordance with the received signal (page 3 [0061] lines 17-19).
- Attar does not disclose that the avatar displayed includes a plurality of joints and that therefore the received signal for controlling the avatar includes information for controlling at least one joint of the displayed avatar. Stringer discloses an input device for controlling an avatar on a computing device (Abstract). The avatar has a plurality of joints and parts (page 10 paragraph 2: “The virtual puppet has a plurality of independently movable body parts 710a-710d.”, Fig. 7). The movement of these parts and joints are controlled in response to motion signals that are generated from an input (page 10 paragraph 4: “displaying a virtual puppet 710 on the display 708 . . . showing movement of the portions 710a-710d of the virtual puppet 710 in response to the pressure and motion signals”). Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Attar and Stringer before them at the time the present invention was made to substitute the known element of the independently movable joint and part avatar, as disclosed by Stringer, for the avatar disclosed by Attar in the remote avatar controlling method of Attar. This substitution

- would yield the predictable result of displaying an avatar having a plurality of joints at a called party; receiving a signal for controlling the avatar, wherein the signal is transmitted from a mobile phone to the called party, the received signal corresponding to one of the joints of the avatar; and controlling at least one joint of the displayed avatar in accordance with the received signal.
- Attar also shows that the system involves “at least one virtual object” (page 1 [0006]). However, Attar and Stringer do not specifically disclose a special number comprising an identifier number for identifying the avatar being controlled. Lloyd discloses a persistent game world (Abstract) maintaining virtual avatars for individual players (col 9 lines 55-64). As with Attar, the avatars help players using mobile devices (col 3 lines 13-19) interact with the persistent world (col 11 lines 20-30). Lloyd discloses multiple players requiring multiple avatars, thereby requiring a player’s identity (col 11 lines 34-35) to be defined through username and passwords (col 11 lines 38-56) or session id’s (col 11 lines 63-67, col 12 lines 1-24). Therefore, it would have been obvious to one having ordinary skill in the art, having the teachings of Attar, Stringer and Lloyd before them at the time the present invention was made, to modify the user and operator method of interaction using a jointed virtual object taught by Attar and Stringer to include the username/password authentication or session-id’s method of Lloyd, in order to obtain virtual avatars that are identifiable either by a username/password combination or by a session-id of an encoded random value. One would have been motivated to make such a combination in order to provide well-defined boundaries for virtual avatar objects (col 11 lines 31-36), as taught by Lloyd,

and therefore provide well-defined boundaries between users in a multi-operator environment (page 4 [0067]), as suggested by Attar.

- **Claims 84-85:** Attar discloses a method of controlling an avatar displayed at a mobile phone of a called party using a mobile phone of a calling party, the method comprising:
 - displaying the avatar at a mobile phone (page 3 [0062] “The computer equipment can also be in the form of a mobile telephone 21”) of the called party (page 3 [0061] lines 17-18);
 - receiving a signal (page 1 [0006]: “Each user (or group of users) has a computer connected to the communications network”) for controlling the avatar (page 1 [0010]: “an operator remotely controls the virtual object in real-time and animates it”), wherein the received signal is transmitted from the mobile phone of the calling party to the called party (page 3 [0062] “The computer equipment can also be in the form of a mobile telephone 21”); and
 - controlling the displayed avatar in accordance with the received signal (page 3 [0061] lines 17-19).
 - Attar does not disclose that the avatar displayed includes a plurality of joints and that therefore the received signal for controlling the avatar includes information for controlling at least one joint of the displayed avatar. Stringer discloses an input device for controlling an avatar on a computing device (Abstract). The avatar has a plurality of joints and parts (page 10 paragraph 2: “The virtual puppet has a plurality of independently movable body parts 710a-710d.”, Fig. 7). The movement of these parts and joints are controlled in response to motion signals that are generated from

an input (page 10 paragraph 4: “displaying a virtual puppet 710 on the display 708 . . . showing movement of the portions 710a-710d of the virtual puppet 710 in response to the pressure and motion signals”). Therefore, it would have been obvious to one having ordinary skill in the art and the teachings of Attar and Stringer before them at the time the present invention was made to substitute the known element of the independently movable joint and part avatar, as disclosed by Stringer, for the avatar disclosed by Attar in the remote avatar controlling method of Attar. This substitution would yield the predictable result of displaying an avatar having a plurality of joints at a called party; receiving a signal for controlling the avatar, wherein the signal is transmitted from a mobile phone to the called party and corresponds to at least an input button of the mobile phone, the received signal corresponding to one of the joints of the avatar; and controlling at least one joint of the displayed avatar in accordance with the received signal.

- Attar and Stringer disclose the mobile phone controlling a jointed avatar method as above; however, neither specifically disclose a special number comprising an identifier number for identifying the avatar being controlled. Lloyd discloses a persistent game world (Abstract) maintaining virtual avatars for individual players (col 9 lines 55-64). As with Attar, the avatars help players using mobile devices (col 3 lines 13-19) interact with the persistent world (col 11 lines 20-30). Lloyd discloses multiple players requiring multiple avatars, thereby requiring a player’s identity (col 11 lines 34-35) to be defined through username and passwords (col 11 lines 38-56) or session id’s (col 11 lines 63-67, col 12 lines 1-24). Therefore, it would have been

obvious to one having ordinary skill in the art, having the teachings of Attar, Stringer and Lloyd before them at the time the present invention was made, to modify the user and operator method of interaction using a jointed virtual object taught by Attar and Stringer to include the username/password authentication or session-id's method of Lloyd, in order to obtain virtual avatars that are identifiable either by a username/password combination or by a session-id of an encoded random value. One would have been motivated to make such a combination in order to provide well-defined boundaries for virtual avatar objects (col 11 lines 31-36), as taught by Lloyd, and therefore provide well-defined boundaries between users in a multi-operator environment (page 4 [0067]), as suggested by Attar.

12. **Claims 25-26, 36-37, 48-49, and 59-60** are rejected under 35 U.S.C. 103(a) as being unpatentable over Attar, Stringer, and Matsuda, as applied to claims 19, 30, 41, and 53 above, and in further view of Lloyd.

- **Claims 25, 36, 48, and 59:** Attar, Stringer, and Matsuda disclose the methods and apparatuses as in claims 19, 30, 41, and 53 above, respectively, showing the relationship of a user and operator as portrayed through the mobile-keyed use of a jointed virtual avatar. In particular, Attar also shows that the system involves "at least one virtual object" (page 1 [0006]). However, Attar, Stringer, and Matsuda do not specifically disclose the signal comprising an identifier number for identifying the avatar being controlled. Lloyd discloses a persistent game world (Abstract) maintaining virtual avatars for individual players (col 9 lines 55-64). As with Attar, the avatars help players using mobile devices (col 3 lines 13-19)

interact with the persistent world (col 11 lines 20-30). Lloyd discloses multiple players requiring multiple avatars, thereby requiring a player's identity (col 11 lines 34-35) to be defined through username and passwords (col 11 lines 38-56) or session id's (col 11 lines 63-67, col 12 lines 1-24). Therefore, it would have been obvious to one having ordinary skill in the art, having the teachings of Attar, Stringer, Matsuda and Lloyd before them at the time the present invention was made, to modify the user and operator method of interaction using a jointed virtual object taught by Attar, Stringer, and Matsuda to include the username/password authentication or session-id's method of Lloyd, in order to obtain virtual avatars that are identifiable either by a username/password combination or by a session-id of an encoded random value. One would have been motivated to make such a combination in order to provide well-defined boundaries for virtual avatar objects (col 11 lines 31-36), as taught by Lloyd, and therefore provide well-defined boundaries between users in a multi-operator environment (page 4 [0067]), as suggested by Attar.

- **Claims 26, 37, 49, and 60:** Attar, Stringer, and Matsuda disclose the methods and apparatuses as in claims 25, 36, 48, and 59 above, respectively, showing the relationship of a user and operator as portrayed through the use of a mobile-keyed jointed virtual avatar that requires a user authentication or session-id to identify the avatar. Lloyd further discloses that session-id's are strongly random values that are selected, mapped to an object and encoded, i.e. a key or a cipher (col 12 lines 1-16). Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Attar, Stringer, Matsuda and Lloyd before them at the time the invention was made, to modify the method taught by Attar, Stringer, Matsuda and Lloyd to use session-id's instead of session-id's or username/password

combinations, in order to obtain virtual objects that are identified using ciphers. One would have been motivated to make such a combination because, in the short term, there may be a need for a more secure and efficient means of identifying the user and virtual object (col 11 lines 63-67), as suggested by Lloyd.

Response to Arguments

13. Applicant's arguments filed October 14, 2008, have been fully considered but they are not persuasive.
14. Applicant argues with regards to claim 19, on pages 18-20, that the references Attar, Stringer and Matsuda do not teach the specific relationship of the claimed joints (of the avatar) and the claimed inputted key(s) of the mobile phone, nor do they teach or suggest that each joint corresponds to a different inputted key of a mobile phone. The examiner respectfully disagrees. As shown in the Final Rejection of July 16, 2008, of claims 19, 30, and 71, the evidence of Attar, Stringer and Matsuda combine to yield the disclosed predictable result, obvious to one of ordinary skill in the art at the time the present invention was made. Attar discloses manipulation of the avatar using a mobile phone and Stringer discloses an avatar with individual moving parts that can be controlled individually. When combined with the Matsuda reference showing individually number-labeled joints, the result of individually moving joints of an avatar using individual keys of a mobile phone is obvious to one of ordinary skill in the art. The reasoning is similarly applied to Applicant's arguments regarding claims 30, 41, 53, 64-65, and 75-78, on pages 20-25.

15. Applicant argues with regards to claim 82, on page 26, that Lloyd does not teach or suggest the features of receiving, at the mobile phone of the called party, a special number that represents an identified number for controlling the avatar. The examiner respectfully disagrees. As discussed in the Final Rejection of July 16, 2008, of claim 82, Lloyd clearly shows a special number that represents an identified number for controlling the avatar. When combined with Attar and Stringer, the special number is clearly received at a mobile phone of the called party. The reasoning in the above two paragraphs is similarly applied to Applicant's arguments regarding claims 83-85 on pages 26-29.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Tank whose telephone number is 571-270-1692. The examiner can normally be reached on Mon - Thur 0830-1700 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Bashore can be reached on 571-272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. T./
Examiner, Art Unit 2175
January 14, 2009

/William L. Bashore/
Supervisory Patent Examiner, Art Unit 2175